

FACT SHEET**MARCH 16, 2010**

APPLICANT: City of Shreveport
P.O. Box 31109
Shreveport, Louisiana 71130

Agency Interest Number: AI 101884
Permit Number: LASS101884
TEMPO Identification Number: PER20080001

TYPE OF PERMIT APPLICATION:

Application for a Sewage Sludge and Biosolids Use or Disposal Permit

PERMIT ACTION:

1. Draft Sewage Sludge and Biosolids Use or Disposal Permit Package

2. Termination of Solid Waste Permit P-0358

The LDEQ, Office of Environmental Services prepared the Draft Permit to be in accordance with LAC 33:IX.7301.D.1.a.ii that requires the administrative authority to reissue a Louisiana Sewage Sludge and Biosolids Use or Disposal Permit to replace the Standard Solid Waste Beneficial Use Permit P-0358 issued to the City of Shreveport on August 20, 2002 (Modified on August 24, 2005). Upon expiration of the comment period, if a determination is made to issue a final Louisiana Sewage Sludge and Biosolids Use or Disposal Permit, the Solid Waste Permit, P-0358, will be terminated.

PREPARATION PROCESS:

The City of Shreveport will utilize Alternative 1 to prepare the sewage sludge generated by the City of Shreveport into an Exceptional Quality Biosolids. The treatment process was purchased by the City for the exact purpose of getting their sewage sludge to an Exceptional Quality Level. At the present time, the treatment process at Shreveport utilizes Exception Quality – Alternative 1 (Time & Temperature) in order to achieve the Exceptional Quality pathogen requirements. The City of Shreveport will also utilize alkaline treatment for Vector Attraction Reduction. The proper pH levels will be achieved by also utilizing the treatment process. The City of Shreveport will also be meeting or be below the pollutant levels in Table 3 of LAC 33:IX.7303.E and will achieve a PCB level of less than 10 mg/kg of dry solids to complete the Exceptional Quality Biosolids Level.

The facility will receive the sludge in liquid form via pipeline from the City of Shreveport's Lucas Wastewater Treatment Plant. The facility will process approximately 3500 tons/year of biosolids on a dry weight basis. An additional estimated 1000 tons/year is being processed at the facility from the North Regional Wastewater Treatment Plant. The facility will store biosolids on-site up to 6 months.

OTHER PERTINENT INFORMATION:

May 6, 2008: The Water Permits Division received a permit application for the Use or Disposal of Sewage Sludge and Biosolids from the City of Shreveport.

May 8, 2008: The Water Permits Division received additional permit application information from the City of Shreveport.

Page 2 of 7

Fact Sheet

Agency Interest Number: AI 101884

October 26, 2009: The Water Permits Division received a revised permit application for the Use or Disposal of Sewage Sludge and Biosolids from the City of Shreveport.

March 16, 2010: A Draft Sewage Sludge and Biosolids Use or Disposal Permit Package was completed and routed for review.

PERMIT REQUIREMENTS:

Odor Management

- a. The production of odor shall be minimized.
- b. Any processed air produced at the facility and other sources of odor shall be contained and, if necessary, treated in order to remove odor before discharging to the atmosphere.

Hazardous Sewage Sludge

- a. This Permit does not establish requirements for the use or disposal of sewage sludge that is hazardous under 40 CFR Part 261 and/or LAC 33:Part V.
- b. The permittee must take all steps to assure that any material prepared with sewage sludge is non-hazardous in accordance with 40 CFR Part 261 and/or LAC 33:Part V.

Sewage Sludge with High PCB Concentration

This Permit does not establish requirements for the use or disposal of sewage sludge with a concentration of polychlorinated biphenyls (PCBs) equal to or greater than 10 milligrams per kilogram of total solids (dry weight basis).

Monitoring and Sampling & Analysis

All samples and measurements taken for the purpose of laboratory analysis shall be representative of the monitored activity and shall be in accordance with the methods referenced in LAC 33:IX.7301.1.2. The permittee shall sample and analyze representative samples of any material, except Agricultural Grade Lime, that is to be added, blended, or mixed with the sewage sludge during the preparation of the Exceptional Quality Biosolids for the parameters listed in Table 1 below:

Table 1	
Raw Sewage Sludge (Hazardous Characteristics Testing)	
Parameter	*Sampling Frequency
TCLP	Once/Year
Metals (As, Ba, Cd, Cr, Pb, Se, Ag)	
Hg	
Volatile Organics	
Semi-Volatile Organics	
Pesticides	
Herbicides	
PCB (Total)	Once/Year

Page 3 of 7

Fact Sheet

Agency Interest Number: AI 101884

The permittee shall sample and analyze representative samples of the untreated sewage sludge generated by the City of Shreveport for the parameters listed in Table 2 below prior to the sewage sludge being prepared/treated to produce an Exceptional Quality Biosolids:

Table 2 Exceptional Quality Biosolids (Hazardous Characteristics Testing)	
Parameter	Sampling Frequency
TCLP Metals (As, Ba, Cd, Cr, Pb, Se, Ag) Hg Volatile Organics Semi-Volatile Organics Pesticides Herbicides	Once/Year
PCB (Total)	Once/Year

The permittee shall sample and analyze representative samples of the Biosolids prepared by the City of Shreveport for the parameters listed in and at the frequency indicated in Table 3 below prior to the Biosolids being sold or given away as an Exceptional Quality Biosolids:

Table 3 Exceptional Quality Biosolids (Pollutant and Pathogen Testing)	
Parameter	Sampling Frequency
Pathogens^{1/}	Once/Quarter (4 times/year)
Arsenic, Cadmium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Zinc (All on a Dry Weight Basis)	Once/Quarter (4 times/year)

^{1/} Unless further notified by the Department, the Analytical Method to be utilized if analyzing for Fecal Coliform must be one of the following:

1. *Standard Method for the Analysis of Water and Wastewater* - Part 9221E
2. EPA - Method 1680.

Page 4 of 7

Fact Sheet

Agency Interest Number: AI 101884

The Biosolids prepared by the City of Shreveport shall be sampled and analyzed for the parameters listed in Table 4 below prior to being sold or given away as an Exceptional Quality Biosolids.

Table 4 - Nutrients and pH	
Parameter	Sampling Frequency
pH ^{1/}	Once/Quarter (4 times/year)
Percent Dry Solids, Percent ammonia nitrogen, Percent nitrate-nitrite, Percent total Kjeldahl Nitrogen, Percent organic nitrogen, Percent phosphorus, Percent potassium, Percent organic matter	Once/Quarter (4 times/year)
The percent determinations for all of the parameters shall be based upon a Dry Weight Basis	

^{1/}Sample and analyze only if the sewage sludge and/or Biosolids underwent or was subjected to any type of alkaline stabilization and/or alkaline treatment.

All samples and measurements taken for the purpose of laboratory analysis shall be representative of the monitored activity and shall be in accordance with the methods referenced in LAC 33:IX.7301.1.

Preparation Process Monitoring

Records for the parameters listed below shall be kept on file at a protective and easily accessed location at the sewage sludge or sanitary wastewater treatment facility and shall be furnished and/or made readily available to the Administrative Authority or DEQ personnel upon request:

- **Sludge Temperature** (Either continuous chart or two readings per day, at least one per shift.)
- **Time of Temperature Reading** (Date, Hour, Minute)
- **Sludge pH**
- **Time of Sludge pH Reading** (Date, Hour, Minute)

Exceptional Quality Biosolids

1. Pollutant Concentrations

The Biosolids prepared by the City of Shreveport under this permit shall not be sold or given away for use as an Exceptional Quality Biosolids if the concentration of any pollutants in the Biosolids exceeds the ceiling concentration for the pollutant in Table 5 below:

Table 5	
Ceiling Concentrations	
Pollutant	Ceiling Concentration (milligrams per kilogram) ¹
Arsenic	75
Cadmium	85
Copper	4300
Lead	840
Mercury	57

Page 5 of 7

Fact Sheet

Agency Interest Number: AI 101884

Table 5	
Ceiling Concentrations	
Pollutant	Ceiling Concentration (milligrams per kilogram)¹
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7500
¹ Dry weight basis	

The concentration for each pollutant in the Biosolids prepared by the City of Shreveport shall not exceed the concentration for the pollutants in Table 6 below prior to being sold or given away as an Exceptional Quality Biosolids.

Table 6	
Pollutant Concentrations	
Pollutant	Monthly Average Concentration (milligrams per kilogram)¹
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800
¹ Dry weight basis	

2. Pathogens

- a. Class A – Alternative 1 shall be utilized for the control of pathogens in the sewage sludge for the preparation of the Exceptional Quality Biosolids.
- b. Representative samples of the Biosolids prepared by the City of Shreveport shall be collected and analyzed for pathogens either for the presence of Fecal Coliform or *Salmonella sp.* bacteria.
- c. The density of fecal coliform in the samples collected in 2.b of this Section shall be less than 1,000 Most Probable Number per gram of total solids (dry weight basis) or the density of *Salmonella sp.* Shall be less than 3 Most Probable Number per 4 grams of total solids (dry weight basis) prior to being sold or given away by the City of Shreveport as an Exceptional Quality Biosolids.

3. Vector Attraction Reduction

The pH of the Biosolids shall be raised to 12 or higher by alkali addition and, without the addition of more alkali, shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours prior to the Biosolids being sold or given away by the City of Shreveport as an Exceptional Quality Biosolids, unless otherwise specified by the permitting authority.

Page 6 of 7

Fact Sheet

Agency Interest Number: AI 101884

Recordkeeping and Reporting

1. Recordkeeping

- a. The laboratory results for the parameters in Tables 1, 2, 3, and 4 of this permit shall be retained for the life of the permit.
- b. The permittee shall create and maintain records of monitoring and sampling and analysis information that shall include:
 - the date, exact place, and time of sampling or measurements;
 - the individual(s) who performed the sampling or measurements;
 - the date(s) analyses were performed;
 - the individual(s) who performed the analysis;
 - the analytical techniques or methods used; and,
 - the results of such analysis.

2. Reporting

The permittee shall submit reports to the administrative authority as indicated below:

- a. The annual amount of sewage sludge generated at the facility shall be reported on or before February 28 of each year.
- b. The annual amount of sewage sludge that is prepared into an Exceptional Quality Biosolids shall be reported on or before February 28 of each year.
- c. For the parameters listed in Table 1 and Table 2 of this permit, the reporting shall be once per year on or before February 28.
- d. For the parameters listed in Table 3 and Table 4 of this permit, the reporting due date is as indicated in Table 7 below:

Table 7	
Reporting	
Monitoring Period	Report Due Date
January, February, March	May 28
April, May, June	August 28
July, August, September	November 28
October, November, December	February 28

Page 7 of 7

Fact Sheet

Agency Interest Number: AI 101884

Label or Information Sheet Requirements

- a. A label or information sheet shall accompany all Exceptional Quality Biosolids that are sold or given away in bulk or a bag or other container by the City of Shreveport.
- b. The label or information sheet shall contain the following information:
 1. the name and address of the preparer;
 2. the concentration (by volume) of each pollutant listed in Table 5 above;
 3. percent nitrogen;
 4. percent ammonia nitrogen;
 5. pH;
 6. the concentration of PCB in *mg/kg* of total solids (dry weight);
 7. application instructions; and,
 8. the following statement: *"The application of Biosolids to the land is prohibited except in accordance with the instructions on this label or information sheet."*

REVIEW OF APPLICATION:

Mr. Eura DeHart, ES-III

Mr. J. Kilren Vidrine, ES-Staff

DRAFT PERMIT PACKAGE PREPARED BY:

Eura DeHart, ES-III